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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,001	11/01/2001	Wen Zhao	555255012288	7436

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EXAMINER
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PHAM, TUAN

ART UNIT	PAPER NUMBER
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2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/11/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/004,001	<b>Applicant(s)</b> ZHAO ET AL.	
	<b>Examiner</b> TUAN A. PHAM	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 42-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments, see Applicant's remark, filed on 01/30/2007, with respect to the rejection(s) of claim(s) 42-53 under 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Lapeyre (U.S. Patent No.: 4,999,795).

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. **Claim 51 is rejected under 35 U.S.C. 102(b) as being anticipated by Lapeyre (U.S. Patent No.: 4,999,795).**

**Regarding claim 51**, Lapeyre teaches a communication device including:

a keyboard with letters arranged in a QWERTY configuration, each of the letters being assigned a number in the range 0-9 (see figure 3, each letter is associated with number in the range 0-9);

the device being operative, for each letter pressed by a user, to communicate the number assigned to the pressed letter (see figure 3, when the keyboard at calculator

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mode, the user press the letter A that will display the number 1 on the screen, col.2, ln.24-32).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. **Claims 42-44, and 46-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Public Application (Nokia user's manual 900i 06/07/1998, hereinafter, "PA") in view of Lapeyre (U.S. Patent No.: 4,999,795).**

**Regarding claim 42**, PA teaches a communication device comprising (see figure 2-11, page 2-10):

a keyboard (see figure 1-2);

a processor for converting the output signal into a character code (see page 3-2,

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it is obvious that the PDA should be included a processor for converting a signal to character code when the user using the text);

means for converting the output signal into a telephony tone signal (see page 3-2, 4-5, it is obvious that the PDA should be included a processor for converting a signal to telephone tone when the user dial the number, DTMF);

software applications stored by the communication device and executed by the processor (see page 2-8), and

a keyboard mode control software module that automatically controls whether the keyboard output signals from the keys are converted into character codes or telephony tone signals based on which of the plurality of software applications is active (see figure 2-11, the keyboard as shown in figure 2-11 is store plurality of applications to support multiple mode, each mode is associated with different software application. When the user select the telephone mode from the keyboard, the controller automatically run on the telephone software application, and when the user select the calculator mode, the controller automatically run on calculator software application, page 2-8, 2-10, 2-11).

It should be noticed that PA fails to teach a keyboard having at least twenty six keys that are each labeled with a different letter of the alphabet and number and configured to generate an output signal. However, Lapeyre teaches such features (see figure 3, col.6, ln.1-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lapeyre into view of PA in order to provide improved alphanumeric entries with corresponding internal operational

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processing capabilities in hand held keyboard entry computer system as suggested by Lapeyre at col.2, ln.8-15.

**Regarding claim 43**, PA further teaches the numbers 2-9 are assigned respectively to keys labeled A-C, D-F, G-I, J-L, M-O, P-S, T-V and W-Z (see figure 1-1).

**Regarding claim 44**, PA further teaches QWERTY keyboard (see figure 2-11).

**Regarding claim 46**, PA further teaches a mode key with which a user can switch conversion of the output signals from telephony signals to character codes (see figure 2-11, application button 1, page 2-10, the user can press the application button 1 to select the mode).

**Regarding claim 47**, PA teaches a communication device comprising (see figure 2-11, page 2-10):

means for generating, for each key pressed by a user, a telephony tone signal corresponding to the number assigned to the pressed key (see figure 1-1, dial the number on keypad to make a call that will generated the DTMF signal).

It should be noticed that PA fails to teach a keyboard having at least twenty six keys that are each labeled with a different letter of the alphabet and number and configured to generate an output signal. However, Lapeyre teaches such features (see figure 3, col.6, ln.1-26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lapeyre into view of PA in order to provide improved alphanumeric entries with corresponding internal operational

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processing capabilities in hand held keyboard entry computer system as suggested by Lapeyre at col.2, ln.8-15.

**Regarding claim 48**, PA further teaches the numbers 2-9 are assigned respectively to keys labeled A-C, D-F, G-I, J-L, M-O, P-S, T-V and W-Z (see figure 1-1).

**Regarding claim 49**, PA further teaches QWERTY keyboard (see figure 2-11).

**Regarding claim 50**, Lapeyre further teaches each key is labeled with its assigned number (see figure 3).

**6. Claims 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lapeyre (U.S. Patent No.: 4,999,795) in view of Public Application (Nokia user's manual 900i 06/07/1998, hereinafter, "PA").**

**Regarding claim 52**, Lapeyre disclosed invention but fails to disclose the numbers 2-9 are assigned respectively to keys labeled A-C, D-F, G-I, J-L, M-O, P-S, T-V and W-Z. However, PA teaches such features (see figure 1-1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of PA into view of Lapeyre in order to provide improved alphanumeric entries with corresponding internal operational processing capabilities in hand held keyboard entry computer system as suggested by Lapeyre at col.2, ln.8-15.

**Regarding claim 53**, PA further teaches the communicating of the numbers is through telephony tone signals (see figure 1, DTMF tone).

7. **Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Public Application (Nokia user's manual 900i 06/07/1998, hereinafter, "PA") in view of Lapeyre (U.S. Patent No.: 4,999,795) as applied to claim 42 above, and further in view of Hidaka (US patent No.: 6,081,548).**

Regarding claim 45, PA and Lapeyre, in combination, fails to teach display the character codes. However, Hidaka teaches such features (see col.2, ln.45-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Hidaka into view of PA and Lapeyre in order to convert the letter to the ascii for use in the telephone system.

### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A. Pham whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Anderson can be reached on (571) 272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.



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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2618  
April 2, 2007  
Examiner



Tuan Pham

Supervisory Patent Examiner  
Technology Center 2600



Matthew Anderson